

**ABSTRACT OF THE DISCLOSURE**

A data processing system having a Harvard type architecture including a separate data store 8 and instruction store 6 is provided with an instruction interpreter 22 that dynamically  
5 modifies slow form instructions to fast form instructions. When a slow form instruction is encountered, the instruction interpreter makes a check within the data store whether a fast form of that instruction has already been provided. If a fast form of the instruction is present within the data store, then this is used instead of the slow form.

10 [Figure 2]

